

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all previous listings.

Claim Listing:

1. **(Currently Amended)** A method for treating a neuronal deficiency, comprising: administering bone marrow-derived cells by vascular administration to an individual having a neuronal deficiency and ameliorating at least one symptom of the neuronal deficiency, wherein the administered cells are autologous, syngeneic or allogeneic, and wherein the individual has a neuronal deficiency caused by Parkinson's disease or a vascular disease.
2. **(Canceled).**
3. **(Canceled).**
4. **(Previously Presented)** The method of claim 1, wherein said bone marrow-derived cells are autologous.
5. **(Previously Presented)** The method of claim 4, wherein said autologous bone marrow-derived cells are genetically modified.
6. **(Previously Presented)** The method of claim 1, wherein said bone marrow-derived cells are allogeneic.
7. **(Previously Presented)** The method of claim 6, wherein said allogeneic bone marrow-derived cells are genetically modified.
8. **(Previously Presented)** The method of claim 1, wherein said bone marrow-derived cells are administered in conjunction with a neuronal factor.
9. **(Previously Presented)** The method of claim 8, wherein said neuronal factor is selected from the group consisting of: nerve growth factor (NGF), brain-derived neurotrophic factor (BDNF), neurotrophin-3, -4, -5, -4/5 and -6 (NT-3, -4, -5, -4/5, -6), ciliary neurotrophic factor (CNTF), glial-derived neurotrophic factor (GDNF), growth promoting activity (GPA), luteinizing hormone releasing hormone (LHRH), KAL gene, insulin, insulin-like growth factor-I-alpha, I-

beta, and -II (IGF-I-alpha, I-beta, -II), interleukins (e.g., IL-2, IL-6, and the like), platelet derived growth factors (including homodimers and heterodimers of PDGF A, B, and v-sis), retinoic acid (especially all-trans-retinoic acid), fibroblast growth factors (FGFs, e.g., FGF- 1, -2, -3), epidermal growth factor (EGF), leukemia inhibitory factor (LIF), the neuropeptide CGRP, vasoactive intestinal peptide (VIP), glioblastoma-derived T cell suppressor factor (GTSF), transforming growth factor alpha, epidermal growth factor, transforming growth factor betas (including TGF-.beta.1, -.beta.2, -.beta.3, -.beta.4, and -.beta.5), vascular endothelial growth factors (including VEGF-1, -2, -3, -4, and -5), stem cell factor (SCF), neuregulins and neuregulin family members (including neuregulin-1 and heregulin), netrins, galanin, substance P, tyrosine, somatostatin, enkephalin, ephrins, bone morphogenetic protein (BMP) family members (including BMP-1, -2, -3 and -4), semiphorins, glucocorticoids (including dexamethasone), progesterone, putrescine, supplemental serum, extracellular matrix factors (including laminins, fibronectin, collagens, glycoproteins, proteoglycans and lectins), cellular adhesion molecules (including N-CAM, L1, N-cadherin), and neuronal receptor ligands (including receptor agonists, receptor antagonists, peptidomimetic molecules, and antibodies).

10. **(Previously Presented)** The method of claim 8, wherein said neuronal factor is administered with the bone marrow-derived cells.

11. **(Previously Presented)** The method of claim 8, wherein said neuronal factor is administered separately from said bone marrow-derived cells.

12. **(Previously Presented)** The method of claim 11, wherein said neuronal factor is administered intrathecally.

13. **(Previously Presented)** The method of claim 1, further comprising the step of mildly damaging the nervous system of the individual.

14. **(Canceled).**

15. **(Currently Amended)** The method of claim 14 1, wherein said bone marrow-derived cells are administered by intravenous administration.

16. **(Currently Amended)** The method of claim 15 1, wherein said bone marrow-derived cells are administered by intravenous infusion.

17. **(Previously Presented)** The method of claim 16, wherein said intravenous infusion is into a peripheral vein.

18.-20. **(Canceled)**.

21. **(Previously Presented)** The method of claim 1, wherein said subject is a human.

22. – 34. **(Canceled)**.

35. **(New)** The method of claim 1, wherein the individual has a neuronal deficiency caused by stroke.